

# MONTHLY NOTICES

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No. 2.

PROFESSOR J. C. ADAMS, F.R.S., President, in the Chair.

Señor Augusto T. Arcimis, Cadiz ;  
 Lieut. Cyril Corbet, R.N., Cloudesley, Bittern, Southampton ;  
 Lieut. C. B. Neate, R.N., Royal Observatory, Greenwich ;  
 Francis Murray Newton, Esq., Barton Grange, Taunton ;  
 William Philip Snell, Esq., M.A., Belmont, near Havant ; and  
 William E. Wilson, Esq., Daramona, Streete, Rathowen,  
 Ireland ;

were balloted for and duly elected Fellows of the Society.

*Manila Photographs of the Transit of Venus, Dec. 8, 1874.*

By the Rev. S. J. Perry, F.R.S.

I have just received from the Physical Observatory at Manila photographic copies of the solar negatives taken during the Transit of Venus last year, which, I think, may be of some interest to the members of this Society. The original negatives would, of course, be of much greater scientific value, especially if accompanied by full details respecting the methods adopted in the observations, but the copies themselves are still very suggestive.

The first was taken at Ingress near the time of bisection; the second, third, and fourth at long intervals during the transit; the fifth and sixth near internal contact at Egress; the seventh at, or extremely near to, internal contact; and the eighth, ninth, and tenth before and after, but near, bisection at Egress. Clouds prevented any more photographs being taken.

Regarding all the pictures we may remark, that the definition is excellent, and that more attention has evidently been paid in the photography to sharpness of outline in the two circles than to detail of surface. In the first, eighth, ninth, and tenth that

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portion of the planet's disk which is outside the solar limb is distinctly visible, the background being decidedly brighter than the surface of *Venus*, but that part of the planet which is on the Sun is somewhat darker than the rest. This is especially noticeable in No. 9.

It seems difficult to overlook a slight increase in the intensity of the light round *Venus* when she is wholly on the Sun; this, perhaps, appears clearest in No. 4, but it is perceptible in Nos. 2, 3, 4, 5, and 6.

No. 7 is exceedingly interesting, as it was taken at the most important moment, and confirms exactly what most astronomers observed at the moment of internal contact; no deformation of the planet, but merely a slight shade where the solar cusps are about to manifest themselves. There is no decided ring of light round the planet, either when on or off the Sun, but only a slight increase of brilliancy when *Venus* is on the Sun, and a general diffused light, on which *Venus*, when off the Sun, is seen projected. It would seem, therefore, that the solar envelopes outside the photosphere produce an effect on the sensitive plate sufficiently intense to manifest by contrast the dark body of the planet. The results also seem to point to a slight actinic power in the general surface of the planet, and a still greater power in its atmosphere.

It may as yet be, perhaps, rather premature to draw any general conclusions regarding the physical results obtained during the late Transit, especially as the most valuable observations are at present under discussion and cannot be published for a considerable time. It may, however, be useful to draw attention to such individual cases as come within our reach, as the opinion of those best able to judge in these matters may thus be elicited, and our many false notions be gradually eliminated, thus leaving a clearer field for the discussion of really important details.

*Stonyhurst Observatory,  
1875, December 8.*

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*On the Posthumous Papers of the late Professor Rigaud.*

By Major-General Gibbes Rigaud.

(Communicated by the Rev. Robert Main.)

When, in 1839, Professor Rigaud was so unexpectedly taken from among us, there was a great feeling among astronomers that Astronomy had met with a great loss, and that in one particular line, namely, that of Scientific Biography, his loss could hardly be replaced. The Marquis of Northampton, at the Anniversary Meeting of the Royal Society, on November 30,